WHAT IS CLAIMED IS:

1. Flow-through ion exchange medium comprising a monolithic stationary phase having interconnecting pores defined by pore walls, and fine ion exchange polymeric layering particles irreversibly bound directly or indirectly to the pore walls.

2. The ion exchange medium of Claim 1 in which the layering particles are covalently bound to said pore walls.

3. The ion exchange medium of Claim 1 in which the layering particles are bound by adsorption.

4. The ion exchange medium of Claim 1 in which said layering particles are bound to said pore walls through a dispersant.

5. The ion exchange medium of Claim 1 in which said layering particles are bound to said pore walls by electrostatic attachment.

6. The ion exchange medium of Claim 1 in which the stationary phase has pore sizes greater than 200 nm.

7. The ion exchange medium of Claim 1 disposed in a chromatography separation column.

8. The column of Claim 7 in fluid communication with a detector.

9. The column of Claim 7 in which said column is in fluid communication with a suppressor which is in fluid communication with a detector.

10. The ion exchange medium of Claim 1 in which said layering particles have a median diameter ranging from about 0.002 to 0.2 microns.

11. A method of chromatographically separating analytes in a liquid sample stream comprising flowing said liquid sample stream through the chromatographic separation column of Claim 7.

12. A method for making an ion exchange medium comprising irreversibly binding fine ion exchange polymeric layering particles directly or indirectly to the pore walls of interconnecting pores in a monolithic stationary phase.

13. The method of Claim 12 in which said binding is covalent.

14. The method of Claim 12 in which said binding is by adsorption.

15. The method of Claim 12 in which said binding is through a dispersant.

16. The method of Claim 12 in which said binding is electrostatic.